

**PP-004** Detection of resistance to mupirocin in *Staphylococcus aureus* strains isolated from patients in 4 university hospitals in Tehran, Iran, by PCR

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**Background:** Mupirocin has used to treat staphylococcal skin infections as well as to eliminate nasal carriage of *Staphylococcus aureus*. Mupirocin resistant *S. aureus* strains are seen worldwide but there is no report from Iran. This study was performed to investigate the presence of mupirocin resistant strains in *S. aureus* isolated from patients in Tehran.

**Methods:** Presence of *mupA* gene, responsible for mupirocin resistance, was determined by PCR method. Disk diffusion and E-test were also used for demonstrating mupirocin resistance. The susceptibility testing of *S. aureus* isolates were carried out by the disk diffusion method. Moreover, PCR method was used for detection of *mecA* gene, which conferring resistance to methicillin and other penicillinase resistant penicillins.

**Result:** Among 94 isolates of *S. aureus*, six strains were resistant to mupirocin; 5 low-level and 1 high-level resistance. From these 6 strains, *mupA* gene was shown in 5 strains. All mupirocin resistant strains were methicillin resistant by *mecA* gene PCR and disk diffusion test. Disk diffusion test had shown all mupirocin resistant strains were resistant to penicillin G, ampicillin, oxacillin, ciprofloxacin, tetracycline, trimethoprim-sulfamethoxazole, ceftiofloxacin, clindamycin and erythromycin but all strains were shown susceptibility to vancomycin.

**Conclusion:** This study is the first report about mupirocin resistance in *S. aureus* strains isolated from patients in Tehran and calls further studies for determination the incidence of this resistance. Also, a combination of PCR and phenotypic methods was recommended for a reliable identification of mupirocin resistance in *S. aureus* strains.

**PP-005** Research on medical sensitivity of Chinese herbs of *Tujia* minority against ureaplasma urealyticum *in vitro*

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**Objective:** To investigate the sensitivity of 8 Chinese herbs of *Tujia* minority against Uu.

**Methods:** Minimal inhibitory concentrations (MIC) and minimal bactericidal concentration (MBC) of 8 Chinese herbs were determined by geometric-progression diluting method and solid cultural method *in vitro*, respectively.

**Results:** 8 tested Chinese herbs had bacteriostatic and bactericidal activities against Uu at different extent, among which *Rhizoma bletillae* were highly active against Uu. Its MIC and MBC were both 7.8l g/L. However, *Malus hapehensis* has no effect on Uu.

**Conclusion:** *Rhizoma bletillae* had bacteriostatic effect on Uu *in vitro*, further studies were needed to investigate its effects and the mechanisms on Uu.

**PP-006** Analyse of drug-resistance about clinical isolated *Pseudomonas aeruginosa*

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**Objective:** To find out the distribution and drug-resistance of *Pseudomonas aeruginosa* clinical isolates in our hospital from August 2005 to September 2007, in order to apply direction of reasonable usage of drug for clinician.

**Methods:** Identification of bacteria was done by ID 32 GN strip of

biomerieux sa 69280 Marcy-l'Etoile of France. Drug susceptibility to 15 antibiotics was detected by ATB-PSE-5 strip.

**Results:** The isolated rate of *Pseudomonas aeruginosa* in respiratory tract is 88.43%. More 30 percent of the isolates are resistant respectively to Ticarcillin, Ticarcillin- clavulanic acid, Piperacillin, Tobramycin, Ciprofloxacin, Ceftazidime. Drug-resistance to Gentamicin and Cefepime is highest, respectively 53.78% and 44.54%. The resistant rate to Imipenem and Meropenem is 24.37% and 23.53%. The strains are most sensitive to Amikacin and Piperacillin-, respectively 78.15% and 72.27%. The isolates are the most sensitive to polymyxin E. The rate is 96.64%. 19.33 percent of all isolates are multidrug resistant.

**Conclusions:** Most of the isolates are from respiratory tract. Clinician should strengthen nursing care and monitoring on respiratory tract infection. The situation of multidrug and resistance to Carbapenms is serious. Clinician should pay high attentions and combine reasonably two and more drugs according to sensitive test and practical situations.

Poster Presentation – Bacterial Infections

**PP-007** Pathogen distribution and drug resistance analysis of inpatients' infection between 2007 and 2008 in infectious disease hospital

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**Objective:** To fully understand the distribution of pathogens very often seen in inpatients from infectious disease hospital and analysis of their antibiotic resistance.

**Method:** To analyze retrospectively distribution of 960 isolates and variance of their drug resistance from inpatients in our hospital between 2007 and 2008.

**Results:** Total 960 strains were found in different samples. Of the 960 isolates, 371 strains (38.6%) were Gram-positive cocci, 589 (61.4%) were Gram-negative bacilli, 77 (7.92%) were fungi. The positive rate of *Escherichia coli* was the highest followed by *Staphylococcus epidermidis* and *Enterococcus faecium*. 31.8% of all strains were from sputum, 23.7% from blood, 12.6% from ascites. The resistance of different strains to antibiotics used frequently in clinical settings is at different levels.

**Conclusion:** *Escherichia coli* is still a main cause in our inpatients with pneumonia. Increasing rate of fungi infection becomes a big concern.

**PP-008** Evaluation of clinical, laboratory and therapeutic findings of brucellosis among children hospitalized at Ardabil's hospitals

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**Objectives & background:** Brucellosis is the common disease between human and animal and that is transmitted through contaminated animals. This study has been conducted to determine the clinical manifestation, laboratory findings and therapeutic approach of children afflicted by brucellosis, hospitalized at 2 hospitals (Aliasghar and Imam Khomaini) of Ardabil within 2000-2005.

**Methods:** This study is a retrospective one, based on existing data of 51 medical units, belonging to patients who were hospitalized within 2000-2005 at these two centers diagnosed as brucellosis patients.

**Results:** From all 51 patients 76.5% were male. Familial history of brucellosis was positive among 38% of patients. Precedence of non-pasteurized dairy consumption was seen among 62% of cases. 69% of patients were belonging to high risk families. Clinical man-